

REMARKS

This Application has been carefully reviewed in light of the Office Action mailed February 14, 2006. Claims 1-11 and 18-27 were pending in this Application. Claim 1 has been amended, Claim 2 has been cancelled, without prejudice or disclaimer, and no new Claims have been added. Thus, Claims 1, 3-11 and 18-27 are currently pending in this Application.

The Examiner rejected Claims 1-11 and 18-27 on the ground of nonstatutory obviousness-type double patenting as being unpatentable over all claims of U.S. Patent No. 6,506,248 B1 (Duselis et al.) and 6,346,146 B1 and also under 35 U.S.C. §102(a, b, and 3) as anticipated by or, in the alternative, under 35 U.S.C. §103(a) as obvious over Gregersen et al. (EP 263723 - abstract only), Mai et al. (Journal of Mat'l Science - abstract only), and Mai et al. (Journal of Mat'ls Science - abstract only and different article from first Mai citation), Cook et al. '762 B2, Dezutter et al. '217 A1, or '452 B2, or Duselis et al. '248 B1 or '146 B1.

**CLAIM REJECTIONS ON THE GROUND OF NONSTATUTORY OBVIOUSNESS-TYPE
DOUBLE PATENTING**

The Examiner rejected Claim 1-11 and 18-27 on the ground of nonstatutory obviousness-type double patenting as being unpatentable over all claims of U.S. Patent No. 6,506,248 B1 (Duselis et al.) and 6,346,146 B1. In making this rejection, the Examiner stated that "[a]lthough the conflicting claims are not identical, they are not patentably distinct from each other

because both teach a cement composite comprising a mixture of both bleached cellulose fibers and un-bleached cellulose fibers." (Office Action dated 2/14/2006, p. 2). MPEP §804 states in part:

Any obviousness-type double patenting rejection should make clear:

(A) The differences between the inventions defined by the conflicting claims – a claim in the patent compared to a claim in the application; and

(B) The reasons why a person of ordinary skill in the art would conclude that the invention defined in the claim ***>at issue would have been<* an obvious variation of the invention defined in a claim in the patent.

When considering whether the invention defined in a claim of an application *>would have been<* an obvious variation of the invention defined in the claim of a patent, the disclosure of the patent may not be used as prior art. *>General Foods Corp. v. Studiengesellschaft Kohle mbH*, 972 F.2d 1272, 1279, 23 USPQ2d 1839, 1846 (Fed. Cir. 1992).

In rejecting claims 1-11 and 18-27 on the ground of nonstatutory obviousness-type double patenting, the Examiner did not (a) specify the differences between the inventions defined by the conflicting claims nor (b) specify reasons why a person of ordinary skill in the art would conclude that the invention defined in the claims at issue would have been an obvious variation of the invention defined in a claim of either patent cited (US6,506,248B1 or US6,346,146B1). Rather, the Examiner merely referred to a section of one of the prior art references, specifically, example col. 5, lines 13-15 of '146B1 and stated that "[a]lthough the conflicting claims are not identical, they are not patentably distinct from each other because both teach a

cement composite comprising a mixture of both bleached cellulose fibers and un-bleached cellulose fibers." (Office Action dated February 14, 2006, p. 2). However, the disclosure of the patent may not be used as prior art, but rather only the claims of the patent may be considered. *General Foods Corp. v. Studiengesellschaft Kohle mbH*, 972 F.2d 1272, 1279, 23 USPQ2d 1839, 1846 (Fed. Cir. 1992). Thus, the applicant respectfully asserts that the Examiner has not established a *prima facie* case of nonstatutory obviousness-type double patenting.

Furthermore, claim 1, as currently amended, recites, *inter alia*, "wherein the bleached cellulose fibers comprise less than about 50% of the total cellulose fibers incorporated into the matrix." This feature is not taught or suggested by either the '248B1 or the '146B1 reference either in the disclosure or in the claims. Therefore, claim 1 as amended, and claims 2-11 which depend from claim 1 are patentably distinct from the '248B1 and '146B1 references.

Claim 18 as originally filed includes the limitation "wherein the blend of cellulose fibers is selected to provide the building material with pre-determined flexibility and strength." This limitation is not taught or suggested in either the claims or disclosure of the '248B1 and '146B1 references nor does the Examiner even address this feature. Therefore, claim 18 and claims 19-24 which depend from claim 18 are patentably distinct from the '248B1 and '146B1 references.

Claim 25 includes the limitations of "a first portion of cellulose fibers having a Kappa number of less than or equal to about 10" and an additional limitation of "a second portion of standard grade cellulose fibers having a Kappa number of greater

than about 10." As with claim 18, these features are neither taught nor suggested by the disclosure or claims of the '248B1 and '146B1 references and are not discussed by the Examiner in making the rejection on the ground of nonstatutory obviousness-type double patenting. Therefore, claim 25 and claims 26-27 that depend from claim 25 are patentably distinct from both the '248B1 and '146B1 references.

It is, therefore, respectfully urged that claims 1, 3-11 and 18-27 are patentably distinct from '248B1 and '146B1 and are thus not subject to rejection based on nonstatutory obviousness-type double patenting.

CLAIM REJECTIONS UNDER 35 U.S.C. § 102 and § 103

The Examiner rejected Claims 1-11 and 18-27 under 35 U.S.C. §102(a, b, and e) as anticipated by or, in the alternative, under 35 U.S.C. §103(a) as obvious over Gregersen et al. (EP 263723 - abstract only), Mai et al. (Journal of Mat'l Science - abstract only), and Mai et al. (Journal of Mat'ls Science - abstract only and different article from first Mai citation), Cook et al. '726 B2, Dezutter et al. '217 A1, or '452 B2, or Duselis et al. '248 B1 or '146 B1. In support of this rejection, the Examiner stated that a number of references taught a cement composition comprising bleached and unbleached cellulose fibers.

Claims 1-11

Claim 1 has been amended and claim 2 has been canceled, thereby rendering the rejection of claim 2 moot. With respect

to claims 1 and 3-11, the applicant submits the following for the Examiner's consideration.

All limitations of the claimed invention must be considered when determining patentability. *In re Lowry*, 32 F.3d 1579, 1582, 32 U.S.P.Q.2d 1031, 1034 (Fed. Cir. 1994). This is true from both an anticipation stand point and from an obviousness determination. In comparing Gregersen et al. (EP 263723 - abstract only), Mai et al. (Journal of Mat'l Science - abstract only), Mai et al. (Journal of Mat'ls Science - abstract only), Cook et al. '726 B2, Dezutter et al. '217 A1, and '452 B2, and Duselis et al. '248 B1 and '146 B1 to the claimed invention to determine obviousness or anticipation, limitations of the presently claimed invention may not be ignored. The present invention in claim 1 recites in relevant part "wherein the bleached cellulose fibers comprise less than about 50% of the total cellulose fibers incorporated into the matrix." Such a feature is not taught or suggested either individually or in combination by any of the references cited above by the Examiner. Therefore, claim 1 is not anticipated by or obvious in view of Gregersen et al. (EP 263723 - abstract only), Mai et al. (Journal of Mat'l Science - abstract only), Mai et al. (Journal of Mat'ls Science - abstract only), Cook et al. '726 B2, Dezutter et al. '217 A1, and '452 B2, and Duselis et al. '248 B1 and '146 B1 and is patentably distinct from these references.

Numerous portions of the present application provide support for the limitation that the "bleached cellulose fibers comprise less than about 50% of the total cellulose fibers incorporated into the matrix" as recited in claim 1. For example, in an embodiment described in paragraph 14, the patent application

states "the blend of cellulose fibers comprises less than about 50%, more preferably between about 5%-25%, bleached cellulose fibers" and that the "blend of cellulose fibers preferably does not include premium grade cellulose fibers."

However, in contrast, the prior art references teach away from Applicant's invention. For example, many of the references cited teach using only bleached or unbleached, but not a combination of both. However, even when bleached and unbleached are used in combination, the references teach away from the claimed invention. Gregerson, for example, if one looks at the entire patent rather than just the abstract, teaches a combination in which there is a greater amount of bleached cellulose fibers as compared to the unbleached cellulose fibers which is in direct opposition to Applicant's claim 1. For example, on p. 9, lines 25-30, Gregerson teaches 400 kg of Sandarne K and 1250 kg EO where Sandarne K was defined on p. 6 lines 36-37 as unbleached cellulose fibers and EO was defined on p. 6 lines 33-34 as bleached fibers. Thus, there is a greater amount of bleached to unbleached fibers. As another example, Gregerson teaches 3 parts by weight Sandarne K (unbleached cellulose fibers) and 9 parts by weight EO (bleached cellulose fibers. (Gregerson, p. 9, lines 60-63). Again, a greater amount of bleached to unbleached cellulose fibers. See also, Gregerson tables II-VII on pp. 12-22. No place does Gregerson ever teach or suggest using a combination of bleached and unbleached cellulose fibers in which there is a greater amount of unbleached cellulose fibers than bleached cellulose fibers. Therefore, it is clear the Gregerson teaches away from the claims of the present application.

Other references also teach away. For example, the abstract of the Mai reference ("Slow Crack Growth in Bleached Cellulose Fiber Cements", Journal of Materials Science Letters (1984)) provided by the Examiner teaches away from the claimed invention by stating that "unbleached cellulose fibers impart superior resistance to crack growth" as compared with bleached cellulose fibers, thus providing a disincentive towards even trying combinations as claimed in the present application.

Cook teaches that "bleached pulp, which is fibers that have been delignified to very low levels of lignin, are preferred, although unbleached kraft fibers may be preferred for some applications due to lower cost, especially if alkaline stability is not an issue." (Cook, col. 4, lines 31-35). However, those skilled in the art will recognize that cementitious materials are inherently alkaline. Therefore, Cook actually teaches away from using unbleached fibers in cementitious materials since Cook teaches that unbleached fibers are unsuitable for alkaline substances. Furthermore, there is no teaching or suggestion in Cook to use a mixture of both bleached and unbleached cellulose fibers.

Regarding the two Dezutter references, both of these references teach transforming the fibers into a pulp flake which is completely non-analogous to the claims of the present application. Although both Duselis references may suggest a combination of bleached and unbleached cellulose fibers, there is no teaching or suggestion for using a combination of bleached and unbleached fibers where the bleached cellulose fibers comprise less than 50% of the total cellulose fibers in the matrix as recited in claim 1 of the present application.

Thus, the teachings of the prior art are consistent with statements in the application as filed, the applicant states that "contrary to conventional wisdom, Applicant has found that bleached cellulose fibers when used in proper proportions with unbleached, standard grade cellulose fibers can result in a fiber cement composite material with substantially equal or even superior flexibility, strength, and other physical properties when compared to an equivalent composite material reinforced by the more costly and less abundant premium grade cellulose fibers. Thus, the cited references, rather than teaching or suggesting the invention as claimed in the present application, actually lend support to the proposition that the present invention as recited in the claims is novel and non-obvious since the prior art teaches away from the present invention.

Because none of the references cited by the Examiner disclose, describe, teach or contemplate the limitations recited in claim 1, either individually or in combination, independent Claim 1 is patentably distinct from these references, along with dependent Claims 3-11. As such, Applicant requests that the Examiner withdraw these rejections.

Claims 18-24

Regarding anticipation, a prior art reference anticipates the claimed invention under 35 U.S.C. § 102 only if every element of a claimed invention is identically shown in that single reference, arranged as they are in the claims. *In re Bond*, 910 F.2d 831, 832, 15 U.S.P.Q.2d 1566, 1567 (Fed. Cir. 1990). All limitations of the claimed invention must be considered when determining patentability. *In re Lowry*, 32 F.3d 1579, 1582, 32 U.S.P.Q.2d 1031, 1034 (Fed. Cir. 1994). Anticipation focuses on

whether a claim reads on the product or process a prior art reference discloses, not on what the reference broadly teaches. *Kalman v. Kimberly-Clark Corp.*, 713 F.2d 760, 218 U.S.P.Q. 781 (Fed. Cir. 1983).

Claim 18 recites in part "a blend of cellulose fibers comprising bleached and unbleached cellulose fibers, wherein the blend of cellulose fibers is selected to provide the building material with pre-determined flexibility and strength." The examiner focused on the "bleached and unbleached cellulose fibers" component of the claim, but did not address the further limitation of "wherein the blend of cellulose fibers is selected to provide the building material with pre-determined flexibility and strength." Since all limitations of the claimed invention must be considered when determining patentability and since the Examiner did not identify corresponding features to "wherein the blend of cellulose fibers is selected to provide the building material with pre-determined flexibility and strength" in any of the cited art, the Applicants assert that the Examiner has not established a *prima facie* case of anticipation.

Numerous portions of the present application provide support for the limitation that "the blend of cellulose fibers is selected to provide the building material with pre-determined flexibility and strength" as recited in claim 18. For example, paragraph 13 states that "the bleached and unbleached cellulose fibers are mixed in pre-selected proportions to provide the composite material with pre-determined physical properties." In another embodiment described in paragraph 13, the "pre-selected proportion is formulated to provide the composite material with a modulus of rupture (MOR) that is substantially equal to or

greater than the MOR of an equivalent composite material reinforced with only premium grade cellulose fibers." Additionally, regarding an embodiment described in paragraph 14, the patent application states "the blend of cellulose fibers is selected to provide the building material with flexibility and tensile strength that are substantially equal or superior to that of an equivalent building material reinforced with only premium-grade cellulose fibers."

The Applicants assert that none of the cited references disclose the limitation of "wherein the blend of cellulose fibers is selected to provide the building material with pre-determined flexibility and strength." In fact, many of the references teach away from the claimed invention. For example, the abstract of the Mai reference ("Slow Crack Growth in Bleached Cellulose Fiber Cements", Journal of Materials Science Letters (1984)) provided by the Examiner teaches away from the claimed invention by stating that "unbleached cellulose fibers impart superior resistance to crack growth" as compared with bleached cellulose fibers, thus providing a disincentive towards even trying combinations as claimed in the present application. Thus, the cited art does not anticipate claim 18. Claims 19-24 which depend from claim 18 are likewise not anticipated by the cited prior art.

Furthermore, regarding obviousness, In *ex parte* examination of patent applications, the Patent Office bears the burden of establishing a *prima facie* case of obviousness. In *re Fritch*, 972 F.2d 1260, 1262, 23 U.S.P.Q.2d 1780, 1783 (Fed. Cir. 1992). In response to an assertion of obviousness by the Patent Office, the applicant may attack the Patent Office's *prima facie*

determination as improperly made out, present objective evidence tending to support a conclusion of nonobviousness, or both. *In re Fritch*, 972 F.2d 1260, 1265, 23 U.S.P.Q.2d 1780, 1783 (Fed. Cir. 1992). One function of the *prima facie* burden is to require the Patent Office to set forth specific objections, which can be met by the applicant, and not just make general rejections. *In re Epstein*, 32 F.3d 1559, 31 U.S.P.Q.2D 1817, 1820 (Fed. Cir. 1994) (Plager, J., concurring). "The Examiner cannot sit mum, leaving the applicant to shoot arrows into the dark hoping to somehow hit a secret objection harbored by the Examiner." *In re Oetiker*, 977 F.2d 1443, 24 U.S.P.Q.2d 1443, 1447 (Fed. Cir. 1992) (Plager, J., concurring). Since the Examiner has failed to address the limitation of "wherein the blend of cellulose fibers is selected to provide the building material with pre-determined flexibility and strength," the Applicants believe that the Examiner has failed to meet his burden of establishing a *prima facie* case of obviousness.

Additionally, applicants believe that the references cited by the Examiner in the Office Action do not show or suggest, either individually or in combination, the feature of "wherein the blend of cellulose fibers is selected to provide the building material with pre-determined flexibility and strength." Therefore, claim 18 is not obvious in view of the references cited by the Examiner in the Office Action and thus, claim 18 is patentable over the cited references. Claims 19-24 which depend from claim 18 are likewise patentable over the cited art for reasons similar to that provided for claim 18.

If the Examiner believes that the feature of "wherein the blend of cellulose fibers is selected to provide the building

material with pre-determined flexibility and strength" is taught in one of the references, applicants respectfully request that the Examiner comply with 37 C.F.R. § 1.106(b) and provide a proper rejection subject to traversal by Applicants, designating the particular parts relied upon and clearly explaining the pertinence of each reference.

Because none of the references cited by the Examiner disclose, describe, teach or contemplate this limitation of "wherein the blend of cellulose fibers is selected to provide the building material with pre-determined flexibility and strength" either individually or in combination, independent Claim 18 is patentably distinct from these references, along with dependent Claims 19-24. As such, Applicants request that the Examiner withdraw these rejections.

Claims 25-27

As with claims 18-24, Applicants believe that the Examiner has failed to establish a *prima facie* case of anticipation or obviousness. Claim 25 recites in part "a first portion of cellulose fibers having a Kappa number of less than or equal to about 10" and "a second portion of standard grade cellulose fibers having a Kappa number of greater than about 10." This limitation is not addressed by the Examiner in the Office Action. Thus, the Applicants believe that the Examiner has failed to meet the burden of establishing a *prima facie* case of anticipation or obviousness.

Furthermore, the Applicants believe that the limitations of "a first portion of cellulose fibers having a Kappa number of less than or equal to about 10" and "a second portion of standard grade cellulose fibers having a Kappa number of greater

than about 10" are neither taught or suggested, either individually or in combination, by the references cited by the Examiner in the Office Action. Therefore, claim 25 is not anticipated nor is it rendered obvious by the references cited by the Examiner. Similarly, claims 26-27 which depend from claim 25 are not anticipated by and are not rendered obvious by the references cited by the Examiner.

Numerous portions of the present application provide support for the limitation that "a first portion of cellulose fibers having a Kappa number of less than or equal to about 10; and a second portion of standard grade cellulose fibers having a Kappa number of greater than about 10" as recited in claim 27. For example, paragraph 15 of the present application states that "a first portion of cellulose fibers having a Kappa number of less than or equal to about 10 and a second portion of standard grade cellulose fibers having a Kappa number of greater than about 10."

In contrast, as mentioned repeatedly above, the prior art references teach away from Applicant's claimed invention. For example, many of the references cited teach using only bleached or unbleached, but not a combination of both and one reference explicitly teaches against combining bleached and unbleached fibers. Thus, as discussed above, the abstract of the Mai reference ("Slow Crack Growth in Bleached Cellulose Fiber Cements", Journal of Materials Science Letters (1984)) provided by the Examiner explicitly teaches away from the present claims by stating that "unbleached cellulose fibers impart superior resistance to crack growth" as compared with bleached cellulose fibers, thereby providing a disincentive towards even trying combinations as claimed in the present application.

Thus, the teachings of the prior art is consistent with statements in the application as filed, the applicant states that "contrary to conventional wisdom, Applicant has found that bleached cellulose fibers when used in proper proportions with unbleached, standard grade cellulose fibers can result in a fiber cement composite material with substantially equal or even superior flexibility, strength, and other physical properties when compared to an equivalent composite material reinforced by the more costly and less abundant premium grade cellulose fibers." Thus, the cited references, rather than teaching or suggesting the invention as claimed in the present application, actually lend support to the proposition that the present invention as recited in the claims is novel and non-obvious since the prior art teaches away from the present invention.

If the Examiner believes that the features of "a first portion of cellulose fibers having a Kappa number of less than or equal to about 10" and "a second portion of standard grade cellulose fibers having a Kappa number of greater than about 10" are taught in one or more of the references, applicants respectfully request that the Examiner comply with 37 C.F.R. § 1.106(b) and provide a proper rejection subject to traversal by Applicants, designating the particular parts relied upon and clearly explaining the pertinence of each reference.

Because none of the references cited by the Examiner disclose, describe, teach or contemplate these limitations of "a first portion of cellulose fibers having a Kappa number of less than or equal to about 10" and "a second portion of standard grade cellulose fibers having a Kappa number of greater than about 10" either individually or in combination, independent

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Claim 24 is patentably distinct from these references, along with dependent Claims 26-27. As such, Applicants request that the Examiner withdraw these rejections.

All Claims

Therefore, Applicant respectfully submits that this Application is now in condition for allowance and respectfully requests that the Examiner allow Claims 1, 3-11, and 18-27.

CONCLUSION

Applicants respectfully submit that the Application is in condition for allowance, and Applicants earnestly seek such allowance of Claims 1, 3-11, and 18-27. Should the Examiner have any questions, comments, or suggestions in furtherance of the prosecution of this Application, please contact Applicants' attorney at 214.999.4344. Applicants, through their attorney, stand ready to conduct a telephone interview with the Examiner to review this Application if the Examiner believes that such an interview would assist in the advancement of this Application.

To the extent that any further fees are required during the pendency of this Application, including petition fees, the Commissioner is hereby authorized to charge payment of any additional fees, including, without limitation, any fees under 37 C.F.R. § 1.16 or 37 C.F.R. § 1.17, to Deposit Account No. 07-0153 of Gardere Wynne Sewell LLP and reference Attorney Docket No. 129843.1080. In the event that any additional time is needed for this filing, or any additional time in excess of that requested in a petition for an extension of time, please consider this a petition for an extension of time for any needed extension of time pursuant to 37 C.F.R. § 1.136 or any other section or provision of Title 37. Applicants respectfully request that the Commissioner grant any such petition and authorize the Commissioner to charge the Deposit Account referenced above. Please credit any overpayments to this same Deposit Account.

This is intended to be a complete response to the Office Action mailed February 14, 2006.

Attorney Docket No. 129843.1080
Customer No. 60148

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**Please direct all correspondence to the practitioner listed
below at Customer No. 60148.**

Respectfully submitted,



Stephen R. Loe
Registration No. 43,757

Gardere Wynne Sewell LLP
Thanksgiving Tower
1601 Elm Street, Suite 3000
Dallas, Texas 75201-4761
Telephone: 214.999.4344
Facsimile: 214.999.3344
Email: sloe@gardere.com

ATTORNEY FOR APPLICANTS

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